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ABSTRACT

The Utah Pupil/Teacher Self-Concept Program is designed to train teachers in the use of verbal behaviors that improve the self concept of students by replacing judgmental statements with positive descriptive messages. The program is based on a successful prototype used with elementary school teachers. Four individualized modules were developed to train teachers to communicate descriptively rather than judgmentally. A preliminary field test was conducted with two junior high school teachers to collect formative evaluation data on the effectiveness of the newly developed program for secondary school teachers. Each teacher was observed for three days prior to the training and for the last two days of the two-week training period. A major problem was measuring changes in pupil self concept at the secondary level which is difficult because the students are exposed to more than one teacher during their school day. Both of the teachers in the field test learned to recognize their use of judgmental behaviors and to replace those behaviors with appropriate descriptive strategies in a high incidence of interaction situations. Graphs illustrating the teachers' behavior changes during the course of the program are presented. Tables present observers' records of each teacher's use frequencies for the self-perception behaviors outlined in the modules. Included in the appendix is the Objective Self-Concept Teacher Behavior Observation Form and guidelines for criterion observations. Also included are graphs delineating the progress of the elementary teachers who were the subjects of the pilot study. A field test is being conducted to collect summative data on secondary teacher behavior changes and will be concluded in June, 1982. (Author/JD)

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The Utah Pupil/Teacher Self-Concept Program

Teacher Strategies that Invite Improvement of Pupil and Teacher Self-Concept*

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Running Head: Teacher Verbal Behavior and Pupil/Teacher Self-Concept

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Abstract

The purpose of this ongoing research is to assess the effectiveness of the Utah Pupil/Teacher Self-Concept Program in changing specific teacher verbal behaviors related to self-concept. The program is based on a prototype with demonstrated positive pupil and teacher outcomes at the elementary level. Four individualized modules are designed to train teachers to communicate descriptively rather than judgmentally. The learner moves from a comprehension level through a recognition level to an application level on each specific behavior taught. These behaviors embody a verbal application model for the theory of invitational education. Each strategy provides a theory-linked skill. Acquiring these skills enables the classroom teacher to implement the invitational education theory. When completed, the program will be suitable for both elementary and secondary teachers. This report focuses on a preliminary field test conducted with secondary in-service teachers to collect formative evaluation data on the newly developed program. Two junior high teachers participated in a single-subject, multiple-baseline study. The independent variable was the program course and the dependent variables were the use frequencies of each relevant behavior per teacher over one class day's time. The study done with Teacher A was simultaneously replicated with Teacher B. The hypothesis examined was: Trained secondary teachers will exhibit measurable change in their daily use frequency of the program verbal behaviors when each of these behaviors is taught. Both secondary teachers learned to recognize their individual use of the judgmental behaviors and to replace those behaviors with appropriate descriptive strategies in a high incidence of pertinent interaction situations. Based on all of the evaluation data to date, it can be tentatively concluded that secondary (junior high) teachers will exhibit practical levels of change in their use frequency of the program behaviors when each of these behaviors is taught, that secondary (junior high) teachers must learn to recognize judgmental behaviors pointed out in the program before they can replace them with appropriate descriptive behaviors, and that most of the descriptive behaviors taught in the program do not appear without specific training. A main field test employing an experimental pre-post control group design is now in progress to collect summative data on secondary teacher behavior changes.

The Utah Pupil/Teacher Self-Concept Program
Teacher Strategies that Invite Improvement of Pupil and Teacher Self-Concept

The teacher and students in any classroom interact to create a shared environment. This environment operates according to a set of values and beliefs (Joyce and Weil, 1980). Such "rules" reveal agreements about what is important and determine the participants' view of reality. Furthermore, exposure to a particular teaching/learning environment for a reasonable time leaves students to construct or reconstruct reality in ways similar to that environment. If the chosen teaching model fosters a positive and caring life view due to the kind of realities admitted to the classroom, students will learn to adopt such a life view. The teacher has many tools with which to create a positive and caring view of life for students. Among these tools are the physical arrangement of the environment, the activities in which students engage during the learning process, all the non-verbal cues exchanged between teacher and students, and all of the verbal messages sent from the teacher to the students. Very often the teacher's verbal messages are the weakest tool in this repertoire.

The learning self-concept of any student is directly related to the classroom environment in which that student lives. Likewise, the teacher's self-concept as a teacher is also related to that same environment. Evidence supports the effect of teacher communication styles on, at least, students' self-concepts. Some researchers have dealt with this effect at the preschool and/or elementary levels (Borg, 1977; Ascione and Borg, 1980; Van Horn, 1980; Bandura, 1977; Canfield and Wells, 1976; Duncan and Biddle, 1974; Felker, Stanwyck, and Kay, 1973; Aspy, 1973; Felker and Thomas, 1971; Krop, Clahoon,

and Verrier, 1971; Stoffer, 1970; Traux and Tatum, 1966; Bandura and McDonald, 1963; and Marlow, 1962). Others have dealt with the same effect at the secondary level (Wheeler, 1980; Quinn, 1977; Inglis, 1976; Purkey, 1975; Purkey and Avila, 1971). Accumulatively, these studies show that verbally descriptive messages tend to have positive effects on students while verbally judgmental messages tend to have negative effects, and that students of all ages are equally vulnerable to a teacher's verbal messages. The teacher who uses verbal description describes the ongoing situation instead of evaluating the personalities of the students involved. The teacher who uses verbal judgment evaluates the personalities of students, instead.

Both theory and anecdotal evidence also support the importance of training teachers to use descriptive verbal communication styles in the classroom (Purkey, 1978; Gordon, 1970, 1977; Ginott, 1972). Since much of the communication between teachers and students is verbal, the students are assumed to learn from the teacher's words what kind of individuals they are. For instance, Purkey's (1978) teacher invitations to be responsible, be capable, and feel valuable, as perceived by students, imply that using verbally descriptive messages is preferable to using verbally judgmental messages in the classroom.

Finally, significant relationships have been found between pupil self-concept and both academic achievement (Kifer, 1975; Weikart, 1971; Good, Biddle, and Brophy, 1975; Wattenberg and Clifford, 1964; Richmond and Dalton, 1973; and Purkey, 1970) and classroom behavior choices (Purkey and Avila, 1971; Shiffler, Lynch-Sauer, and Nadelman, 1977). According to the above literature, a student's self-concept functions as both a determinant and an outcome of changes in achievement level and appropriate behavior choices. As Spears and Deese (1973) have indicated, a student's self-concept does not cause the student to misbehave in the classroom; instead the disruptive student has learned to see himself as a troublemaker and behaves accordingly. If, as these authors

suggest, self-concept is positively related to academic achievement and/or classroom behavior, teacher strategies that attempt to invite students to think well of themselves are, indeed, worthwhile teacher education materials. Verbal description is one such teacher strategy.

Based on the evidence discussed, the identification of descriptive teacher communication styles is one method of encouraging students to choose to think well of themselves at school. Therefore, developing competency-based, in-service programs which train teachers to use these identified behaviors is justified. One training course of this type has been thoroughly developed at the elementary level (Borg, 1977; Ascione and Borg, 1980; and Van Horn, 1980). The course was developed according to an existing training model (Borg, 1975, 1977) to teach verbal description skills. The training model is designed to bring each teacher from a comprehension level, through a recognition level, to an application level on each specific verbal skill taught. Direct evaluation of this course provides the most empirical evidence that elementary teachers' verbal behavior can be changed by a particular teaching model to favorably affect student self-concept.

Development of the Elementary Self-Concept Program

Between 1974 and 1979 three experimental group design studies were conducted by the members of the Utah State University research team developing the course materials. In all of these three studies, the experimental teachers significantly changed their use frequency of the program's verbal behaviors in the classroom ($p < .05$ and .01) as a direct result of training (Borg, 1977; Ascione and Borg, 1980). In the first evaluation and follow-up study run from 1974-76, the experimental pupils did not show self-concept gains significantly above the control pupils as measured by the Piers-Harris Children's Self-Concept Scale. The 1977-78 and 1978-79 studies were focused on handicapped students in mainstreaming classrooms. During the 1977-78 study, the pupil sample was divided into handicapped, normal non-minority, and minority sub-samples. The handicapped

students did not differ significantly in self-concept as measured by the Self Observation Scale. However, by the end of the 1978-79 study, significant differences in pupil self-concept in favor of the experimental group handicapped pupils did emerge. The Piers-Harris Children's Self-Concept Scale and a newly developed scale, The What I Think Scale, were used to measure self-concept in this final study. The WITS scale correlated .81 with the Piers-Harris Scale (Ascione and Borg, 1980). For both measures, experimental handicapped pupils' post scores no longer differed significantly from scores for non-handicapped minority and nonminority pupils. The program had positive effects on the identified target sample.

Van Horn (1980) also achieved both positive teacher and pupil effects as a result of training teachers to use the strategies in this program. Four elementary teachers were taught to use the behaviors as part of an in-service course. A single subject, multiple-baseline design was used to determine teacher effects. The first teacher was the main subject, and the study was then directly replicated three times using the other three experimental teachers. Data on these four subjects were collected through observation of program-related teacher behaviors. Results from the teacher data indicated that elementary teachers will indeed exhibit changes in their use frequency of the Elementary Self-Concept Program verbal behaviors when each of these behaviors is taught. The use of judgmental behaviors decreased in frequency while the use of descriptive behaviors increased in frequency (see Appendix C). A quasi-experimental design was used to assess pupil effects as a result of teacher training. The pupils in the four trained teachers' classes served as the experimental group. The control group consisted of the pupils in three comparable teachers' classes. These teachers were not trained; therefore, the pupil control group recived no treatment. The Piers-Harris Children's

Self-Concept Scale was administered before and after the in-service course was taught. Results from this data indicated that pupils whose teachers are trained to emit the program's specific language skills recieved significantly higher self-concept scores than pupils whose teachers do not recieve this training, provided there no other communication styles used in the classroom than that of the trained or untrained teacher.

Purpose of Present Study

Given the cited research evidence, not only is it important to train teachers to deal with the self-concept in the classroom, but one training program with demonstrated effectiveness has been developed at the elementary level. The training model employed in this program is powerful. Trained teachers learn to use the specific behaviors consistently enough to have a measurable positive effect on their students' self-concepts. Furthermore, these teachers also report a more favorable atmosphere in their classrooms which tends to help them feel better about their teaching. A problem exists in that this program is designed only for use at the elementary level. Material searches conducted in 1979-80 and again in 1980-81 to find similar teacher training materials at the secondary level revealed no such materials based on this training model to exist. Therefore, a three year program was proposed, funded and begun in the fall of 1979 to ensure development of a secondary program. The research is funded by a Title IV-C Grant administrated by the Utah Office of Education and the Logan City School District. The final evaluation study will be completed by the end of June 1982. The broad purposes of this research are: (1) to develop a training course for both elementary and secondary teachers using the original elementary program as a prototype, and (2) to test the training model employed with secondary teachers.

Description of the New Training Program For Both Elementary and Secondary Teachers

The Utah Pupil/Teacher Self-Concept Program consists of four competency-based teacher training modules. Each module deals with a particular concept and presents a few specific skills the teacher can use to apply the concept in the classroom. These skills are called the behavioral indicators. Each module contains: (1) a Student Guide--Description of the Concept and behavioral indicators, two recognition lessons/keys, one application lesson/key. (2) A Recognition Test/Key--a situational class script in which the teacher must recognize underlined examples of the module verbal behaviors. (3) An Application Test/Key--a situational classroom script in which the teachers must supply the module verbal behaviors at keyed places using their own words. Table 1 summerizes each module.

Table 1

Specific Teacher Behaviors Covered in

The Utah Pupil/Teacher Self-Concept Program

Module 1--Introduction to Verbal Description Versus Verbal Judgment

1. Influence is using a specific communication style which allows change of mind (attitude) without loss of face. Students may choose to change their minds (attitudes). The result could be permanent behavior change.

2. Power is using rewards and punishments for the purpose of changing another person's behavior. Students may change their behavior, momentarily, but not their attitudes.

3. Verbal Description--The teacher verbally describes the ongoing situation instead of evaluating the personality(ies) of the student(s) involved. Verbal Description is the language of Influence.

4. Verbal Judgment--The teacher verbally evaluates the personalities of students instead of describing the ongoing situations in which they are involved. Verbal Judgment is the language of Power.

Table 1 (cont.)

Specific Teacher Behaviors Covered in

The Utah Pupil/Teacher Self-Concept Program

Module 2--Verbal Description for No-Problem Time

Praise Behaviors:

1. Appreciative Praise (AP)--The teacher objectively and specifically describes the student's act. The statement may also subjectively describe the teacher's personal feelings about that act. The teacher may also thank the student while clearly naming the act. (verbal description) Examples:

   a. I liked the way you paused before that word.

   b. That was a lovely song with a haunting, sweet melody. It sounded as if you really felt the message in the words and music.

   c. You noticed a comma; noticing the commas and pausing helped us understand the meaning.

VERSUS

2. Evaluative Praise (EP)--The teacher subjectively evaluates the student's personality. The teacher praises the person not the act. (verbal judgment)

   Examples:

   a. It's great to have people like John whom we never have to wait for.

   b. I'm proud of you. You're a very honest boy.

Self-Perception Behaviors:

1. Modeling (M)--The teacher models a positive self-remark. The remark objectively describes the teacher's own act and subjectively describes the positive feelings about that act. (verbal description) Examples:

   a. I'm trying out a new idea that I think will work really well.

   b. It's a good thing I always come to school a little early.

   c. I'm glad I chose to have you work on such an interesting subject.

Table 1 (cont.)

Specific Teacher Behaviors Covered in

The Utah Pupil/Teacher Self-Concept Program

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2. Positive Prompting (PP)--The teacher asks questions that invite students to talk positively about themselves. (verbal description) Examples:

   a. What do you like about working by yourself on this report?

   b. What makes you so happy, Tom?

   c. I can see your line drawing pleases you, Cindy, can you tell me why?

3. Teacher Reinforcement (TR)--After a student expresses a favorable self-perception, the teacher gives the student verbal reinforcement by agreeing with that perception and/or using Appreciative Praise (verbal description) Examples:

   a. Student: My drawings have really gotten better.
      Teacher: They certainly have. (TR)

   b. Student: I can! I know it! (She writes the answer on the board.)
      Teacher: You certainly did know that, Gerry, you didn't even stop and think! (TR)

   c. Student: I always read the lesson real well.
      Teacher: You do read thoroughly, Anita. (TR)

Module 3--Verbal Description when Students Own Problems

1. Descriptive Prompt (DP)--The teacher makes a statement objectively describing visible clues which suggest a student owns a problem and/or asks a question inviting the student to talk (or continue talking) about the problem. The teacher speaks first. (verbal description) Examples:

   a. Your eyes look sore and you're not reading, Annette.

   b. Some of these problems didn't seem clear to you, Bert. Can I help?

   c. Being late so much is causing you to miss important points in this class. Would you like to talk about it?

Table 1 (cont.)

Specific Teacher Behaviors Covered in

The Utah Pupil/Teacher Self-Concept Program

2. Active Listening (AL)--The student speaks first. The teacher makes a statement subjectively describing what was heard. The statement reflects and clarifies the student's spoken feelings, problem or complaint. (verbal description) Examples:

   a. Student: I wish I was home where I knew everyone in my class.
      Teacher: You are feeling lonely since you don't know anyone here yet.

   b. Student: I guess I don't need to worry about that lost book now.
      Teacher: You're not going to do anything about it until the end of the year.

   c. Student: I know I did better than the grade you gave me!
      Teacher: You feel you deserved a higher grade.

VERSUS

3. Verbal Judgment (VJ)--The teacher makes a statement or asks a question which diagnoses the student's spoken or unspoken problem (feelings). The remark may label the student's character. Examples:

   a. You should be ashamed to be so irresponsible.

   b. You could have done better, if you'd practiced.

   c. Why can't you leave other people alone?

Module 4--Verbal Description that Invites Student Cooperation

1. Inviting Cooperation (IC)--The teacher uses Verbal Description to tell students correct information about the teacher whenever their cooperation is needed in the classroom or at school.

THERE ARE THREE TIMES WHEN YOU CAN USE INVITING COOPERATION:

   A. You can use Inviting Cooperation when you only have a mild problem, i.e., you want everyone's attention. You will make a remark that asks a student to do something right away or in the very near future. The remark can be either a statement or a question. Examples:

Table 1 (cont.)

Specific Teacher Behaviors Covered in

The Utah Pupil/Teacher Self-Concept Program

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a. I need to have someone pass out the books.

b. Let's get out the yardstick and find out.

c. How about your working on number 4, please?

B. You can use Inviting Cooperation when you FIRST own a problem (some behavior falls below your acceptance line, and you must confront a student).

C. You can use Inviting Cooperation when there is an accident or sudden occurrence and BOTH you and your student(s) own a problem.

THERE ARE SIX POSSIBLE STEPS THAT CAN BE USEFUL ALONE OR IN SOME SEQUENCE IN SITUATIONS B AND C:

Step 1: Objectively describe what you see--camera point of view.
Step 2: Subjectively describe the concrete and tangible effect of the situation or behavior--your own personal point of view.
Step 3: If you are feeling a great deal, subjectively describe your primary feelings generated by the concrete and tangible effect, your unmet needs.
Step 4: If possible wait momentarily for students to choose a behavior change without shifting your attention.
Step 5: Subjectively describe the desired behavior change: You can (1) offer a choice of acceptable behaviors, (2) describe one, or (3) ask a student to review a rule or policy. In case of a sudden occurrence, can describe action needed and immediately help carry it out.
Step 6: Alternate between Inviting Cooperation and Active Listening as necessary to solve problems in the classroom. Examples:

a. (Step 5 alone) Donald, you need to decide to stay in the study area and work or to leave and work alone at the back desk.

b. (Step 1) The books fell just as the bell rang.
(Step 2) They'll get torn.
(Step 3) Let's pick them up quickly so we can both get to class.

Table 1 (cont.)

Specific Teacher Behaviors Covered in

The Utah Pupil/Teacher Self-Concept Program

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c. (Step 1) We'd like to hear the record. . . (momentary wait --Step 4)
(Step 2) . . . and that bumping noise disturbs our hearing.

d. (Step 1) There's ink on everything, my books, your clothes!
(Step 2) I can't get this mess cleaned up and get ready for class.
(Step 3) I'm disgusted!
(Step 5) How about you boys doing this, while I finish getting ready?

VERSUS

2. Verbal Judgment (VJ)--The teacher uses verbally judging remarks to tell students (1) incorrect information about themselves and/or (2) what to do. Direct Commands are often used in Inviting Cooperation situations. Such direct commands are Verbal Judgment.
Examples: (Mild problems--you can compare these to the examples above)

a. Pass out the books. (direct command)

b. Get the yardstick and find out. (direct command)

c. Quit talking so we can start. (direct command)

(You first own the problem or there is a sudden occurrence)

a. Go to your own desk and work since you can't work with us. (direct command plus a Verbal Judgment telling student incorrect information. The student could work with the group, but just isn't at the present moment.)

b. How can you be so clumsy? (labeling) Pick those books up right away. (direct command)

c. Be quiet back there! (direct command)
No consideration. . . (verbal judgment--incorrect information)

d. You're disgusting. (verbal judgment--incorrect information)
Look what a mess you've caused. (direct command--blaming)

Relationship of the Program Behaviors to the Invitational Education Theory

The Utah Pupil/Teacher Self-Concept Program behaviors embody a verbal application model for the theory of invitational education. Every specific behavior taught in the program provides a theory linked skill. Acquiring these specific skills enables a classroom teacher to effectively apply and implement the theory of invitational education in the classroom. Invitational education theory is firmly based on the principles of perceptual psychology. A basic tenet of the theory is that motivation is an internal, not an external, force. Therefore, teachers cannot motivate students to learn; however, they can invite students to motivate themselves by providing an environment filled with positive expectations (Purkey, 1978). Verbal description is a tool, a specific communication style, teachers can be taught to use in the classroom. When verbal description instead of verbal judgment prevails as a communication style between teachers and students, a positive classroom atmosphere is created. Within that atmosphere only the realities that model a caring life view are permitted.

According to Joyce and Weil (1980) all models of teaching have either--or both--instructional and nurturant effects. Instructional effects involve how the model achieves its instructional goals. Trained teachers learn to use verbal description behaviors in the classroom at a frequency level significantly above that of untrained teachers. Therefore, the verbal description teaching model exhibits instructional effects. Nurturant effects involve what the student internalizes due to experiencing the model. The teacher who learns to be verbally descriptive at all times with students influences those students to behave similarly. Therefore, the verbal description teaching model has nurturant effects. It is worthwhile to note that the verbal description skills taught in the program are applicable across all teaching specialties and during both no-problem and problem time in any level of classroom.

There are three dimensions for debating the worth of any teaching model--the personal, the social, and the intellective (Joyce and Weil, 1980). The personal dimension involves the quest for meaning and development in the individual's own life. The social dimension involves both the interpersonal aspects of teaching and the obligation to the larger society, i.e., the need to improve society and find meaning in relation to it. The intellective dimension involves offering sources for improved problem solving strategies. All teaching models can be discussed in terms of their relevance to each of these dimensions. Any given model may emphasize and provide specifications for one or more of the dimensions. Investigation of these dimensions sheds light on a major question: What are the relatively permanent effects on a teacher/student living in the environment created by any particular model? Table 2 and Table 3 point out (1) the direct effects of the verbal description model on the teacher as a student of that model, and (2) the indirect effects of the verbal description model on the student influenced by a trained teacher who uses the model.

Table 2

Direct Effects of the Invitational Verbal Description Communication Model on the Teacher Who Learns to Use the Model

Type of Direct Effect	Dimension	Specific Effect
Nurturant	Personal	Self-concept of "me" as a teacher grows
Nurturant and Instructional*	Social	Interaction with pupils shifts from judgmental to descriptive

*This is an empirically tested effect, see research cited on program.

Table 2 (cont.)

Direct Effects of the Invitational Verbal Description Communication Model on the Teacher Who Learns to Use the Model

Type of Direct Effect	Dimension	Specific Effect
Instructional*	Intellective	teacher learns specific interaction skills that can be applied in the classroom to create an inviting, positive atmosphere/environment
		teacher learns to recognize who owns which problems and to create the most teaching/learning time or no-problem time possible

*This is an empirically tested effect, see research cited on program.

Table 3

Indirect Effects of the Invitational Verbal Description Communication Model on Students of Trained Teachers

Type of Indirect Effect	Dimension	Specific Effect
Nurturant and Instructional*	Personal	self-concept as learner grows
Nurturant and Instructional	Social	student copies descriptive skills modeled by teacher
Instructional	Intellective	Student is always invited (given a chance) to accept responsibility for his own behavior choices
		student learns to exercise self-discipline through model of teacher

*This is an empirically tested effect, see research cited on program.

A distinctly educational value emerges from the above thoughts. That value is the moral validity of the teaching models we choose to use in our classrooms. Such choices of what to instruct and nurture, of how to instruct and nurture are everyday decisions with far reaching personal and social consequences. Teachers trained to consistantly use verbal description tend to invite students, while teachers who, even inconsistently, use verbal judgment tend to disinvite students. By comparison, the verbally descriptive teacher can only hope to create positive consequences in the lives of those students.

SECONDARY RESEARCH ON THE NEW PROGRAM

To date, the following research and development steps (Borg and Gall, 1979) have been completed to create this new program for both elementary and secondary teachers.

The Pilot Field Test

During 1979-80, a Pilot Field Test was conducted at the secondary level using the Elementary Self-Concept Program. The purposes of this Pilot Field Test were: (a) to collect data on the prototype behaviors in order to adapt them for secondary use, and (b) to discover other specific behaviors used by secondary teachers in order to apply program concepts in their classrooms. All of the feedback data collected from the two secondary teacher consultants employed in this Pilot Field Test were studied and analyzed for incorporation into the new program materials. Part of these data were also collected through direct observations in the teacher consultants' classrooms. The purpose of those observations was solely to instruct them in the use of the program behaviors. Concomitantly, a thorough review of the most recent theoretical and research literature in the area of teacher effects on pupil self-concepts at

the secondary level was conducted. This review produced new sources of concept theory, but did not reveal the existence of any comparable in-service training materials. During the first half of 1980-81, the Pilot Field Test data and the first year's materials search data were utilized to reconceptualize and design the modules in the new Utah Pupil/Teacher Self-Concept Program for use at both the elementary and secondary levels (see Table 1).

The Preliminary Field Test

During the spring quarter of 1981 a Preliminary Field Test was carried out on the new program to collect formative data. The independent variable was the program course and the dependent variables were the use frequencies of each relevant behavior per teacher over one class day's time. A single-subject, multiple-baseline design was used. The evaluation was aimed at examining the following research hypothesis: Trained teachers will exhibit measurable change in their daily use frequency of the self-concept verbal behaviors when each of these behaviors is taught.

Justification of the single-subject design

The research hypothesis was devised to answer the major question: To what extent does the Utah Pupil/Teacher Self-Concept Program affect individual secondary teacher's use of the specific verbal behaviors in the classroom? Therefore, the major focus of the Preliminary Field Test was on the individual teacher. Single-subject research yields a principle of behavior applicable to a particular individual (Bijou and Baer, 1960). When such a principle holds true for more and more individuals with similar characteristics, it can be seen how generally that principle applies (Sulzer-Azaroff and Mayer, 1977). Furthermore, single-subject, or intensive, designs simultaneously provide for attaining experimentally

controlled conditions. Such control reduces the confounding effect of extra-program variables (Thoreson and Anton, 1974). Thus, a single-subject, multiple-baseline design across behaviors was chosen to analyze the teacher effects data collected in the Preliminary Field Test. According to Sulzer-Azaroff and Meyer (1977), the multiple-baseline design across behaviors consists of applying one treatment procedure to different behaviors, one at a time, with the same individual. In this study, a particular teaching approach, exemplified by the training model in each of the modules was being tested. The only variation in design is that each module was supposed to affect a set of particular behaviors rather than one single behavior. Use of this design made it possible to determine: (1) if each of the modules affected the behaviors that it was supposed to affect; (2) how well each module worked on a teacher who was markedly low on the descriptive behaviors and/or markedly high on the judgmental behaviors during baseline observations; (3) where one specific discriptive behavior allowed a teacher to replace an opposite judgmental behavior in the same situation; (4) which modules affected behaviors other than those they were supposed to affect.

According to Edgar and Billingsley (1974) ideographic research handles the question of internal validity with two basic principles. First, an attempt must be made to show a reliable control of the dependent variable by the independent variable in a single instance. The multiple-baseline design described above was used to satisfy this requirement, since successive applications of the experimental variable (each of the modules) were applied to a number of behaviors measured over time. The experimental variable, in the case of each module, is assumed reliable if the behaviors it is supposed to change, change maximally only upon its application. Second, the critical technique used to establish internal validity is replication. Each successful replication of the experiment decreases the probability that chance (any unaccounted for variance) caused the change in the dependent variable (Sidman, 1960). Such replication allows

generalization from single subjects to groups of similar subjects. Due to lack of time and funds for the researcher to teach two individual classes, one to each subject, it was decided to use direct or simultaneous replication rather than systematic replication. Although systematic replication strengthens the external validity (generalizability) of the results, it is not uncommon, under restraints, to use simultaneous replication and train more than one subject at the same time (Sidman, 1960; Edgar and Billingsley, 1974; Borg and Gall, 1979). Subjects were, of course, tested individually in individual settings. The single-subject, multiple-baseline graphs plotted from data collected on each teacher in the study, therefore, clearly demonstrate the effect each module had on the behaviors it was supposed to change, as well as the effect it had on any of the other behaviors included in the study.

Procedures

The Measure. The measure of the dependent variables (the eleven teacher behaviors) was the objective Teacher Behavior Observation Form (Appendix A). Trained observers were used to collect the data (Observer training instructions exist). Interrater reliability was established between the observers during actual classroom observation sessions. A total of 18 1-hour observations were carried out to establish reliabilities ranging from .83 to .99 for eight of the eleven behaviors observed. Three of the eleven behaviors observed occurred too infrequently, given opportunity for use, to provide meaningful comparisons (see Table 4).

The Sample. Two junior high teachers from the Logan School District, Logan, Utah, volunteered to be the teacher consultants for this field test. Only two teachers were necessary for the design as described above. However, since teachers cannot be required to participate in programs of this kind, in-service training programs are nearly always voluntary. Therefore, results obtained

from voluntary samples generalize reasonably well to operational programs. These two subjects participated in three major activities to conclude the field test--a baseline data collection, a training course, and a treatment effects data collection.

Table 4

Interrater Reliability based on Eighteen 40-minute Pre-Observations of Eight Behaviors

Behaviors	Spearman r
General Praise	.95
Appreciative Praise	.99
Evaluative Praise	.92
Active Listening	.90
Verbal Judgment and Labeling	.98
Direct Commands	.98
Inviting Cooperation (No-Problem Time)	.83
Inviting Cooperation (Problem Time)	.99

Baseline Data Collection. Each teacher was observed for three 4-hour sessions. Each session lasted approximately one day. These observations took place before any training with program materials was begun. The use frequency of each program behavior was tallied during each session to establish a baseline use for each teacher for all of the behaviors to be taught.

The Training Course. The two teacher consultants were then trained to use or avoid the specific descriptive and judgmental language behaviors covered in

the four new modules (see Table 1). This training is the independent variable or treatment in the study, while each teacher behavior, whose consequent use frequency change depends on that training, is a dependent variable. There were eleven dependent variables in the study. The following time sequence was employed to deliver the treatment: (a) The teachers learned the behaviors in the first module. It took a week and three days to teach the behaviors from comprehension through recognition to an application level. During this progression through the module, each teacher was asked to practice the accumulated skills in the classroom whenever occasion permitted and to audio record a given segment of classroom activity for playback in class. There were three 90 minute class meetings per module. (b) The second, third and fourth modules were taught in the same manner until the teachers had learned all of the behaviors so far included in the program. Delays due to hollidays and the illness of one teacher did not leave enough time for any of the usually scheduled practice weeks after the teachers had learned to use all the behaviors at a minumum level. Usually, four practice weeks are scheduled to allow teachers enough time to become more consistent in their use of each behavior before the final criterion observations.

Treatment effects data collection. Formative performance data was collected during the last two days of the two week training period on each module. Plus, two criterion observations were carried out during the final weeks of the course. Each observation session lasted for four hours. This was equal to six 45 minute periods or one whole school day. Each teacher's performance on all of the behaviors was tallied after each observation and plotted on the correct graph. Changes in performance on any dependent behavior variable following treatment with a given module was then compared to the original baseline use for that behavior.

Problems Encountered

A major problem of this study was the impossibility of conclusively measuring the pupil effects. At the secondary level changes in pupil self-concept as a result of changes in teacher behavior cannot be conclusively measured unless all of the teachers whose verbal behavior affects that pupil all day long are trained. This means that at least all the teachers of one grade level would have to be trained to use the program behaviors before pupil changes in self-concept could be effectively measured. The logistics of training, for instance, all of the ninth grade teachers in a junior high and observing them are well beyond the funds and personnel of this project. The fact that pupil effects can be effectively measured in the self-contained classroom of an elementary teacher generated the sole use of elementary classrooms in all of the previous research cited above which has been done on this kind of teacher education material.

Results: Treatment 1--Introduction

Treatment 1 consisted of teaching the first module, Introduction to Verbal Description Versus Verbal Judgment. Since this was the first time an introductory module was used in this teacher education model, its possible effects on subjects' attempts to use certain behaviors before those behaviors were actually taught was not known. It will be noted that all of the behaviors this teaching approach is designed to affect come from a similar topography--they are all verbal behaviors. In fact, some of the behaviors taught are simply different choices to be used in similar situations. As can be seen from Figure 1 through Figure 5 for Teacher A and Teacher B, the brief introduction to all of the program behaviors received in Module 1 did indeed affect certain behaviors to some extent. The details of this effect will be discussed below. (All figures and tables for the Results sections are included at the end of the paper.)

Results: Treatment 2A--Self-Perception Behaviors

All of the self-perception behaviors emphasized in Treatment 2A from Module 2, Verbal Description for No-Problem Time, are descriptive behaviors designed to enhance teacher and student self-concept. One of these behaviors, Teacher Reinforcement of Positive Pupil Remarks depends upon a student first making a positive self-reference to which the teacher can respond. Another behavior called Positive Prompting was also taught in the module. The effect of this behavior is to encourage a student to make a positive self-reference in a situation identified as positive for that student by the teacher. Unfortunately, the occurrences for this behavior were tallied along with another type of prompt during the baseline observations. Therefore, the exact effect of Positive Prompting on the occurrence of Positive Pupil Remarks to which a teacher could respond with Teacher Reinforcement is obscured.

As Figure 1 for Teacher A and Teacher B reveals, the Modeling behavior involving teacher self-praise was virtually never used before training. However, after training both teachers gradually increased their use of Modeling in the classroom. As can be seen from Table 5, Teacher A increased the use of the behavior from 25 percent use or one instance in 4 observation sessions before training to 75 percent use or 1 Modeling statement per observation session after training. Similarly Teacher B increased the use of Modeling from 0 before treatment to an average of 1 Modeling statement per observation session after treatment.

The other three behaviors taught in the module, Positive Prompting (not graphed), recongition of Positive Pupil Remarks, and Teacher Reinforcement, are more or less interacting behaviors. The use of Positive Prompting has a tendency to increase Positive Pupil Remarks depending on the activity in progress. As Positive Pupil Remarks increased, Teacher Reinforcement of those remarks also tended to increase after training. Figure 1--Teacher A--graphs

the occurrence of several Positive Pupil Remarks to which the teacher was not at all responding before training. After training, Teacher A was much more aware of the occurrence of Positive Pupil Remarks to which to respond with Teacher Reinforcement. Interestingly enough, Teacher B always seemed to be aware of the occurring Positive Pupil Remarks in that class and responded accordingly. However, this teacher tended to voice several negative self-perceptions per observation session at the beginning of the study, Figure 1. It will be noted that after Treatment 1, the introduction to the program concepts, this tendency began to decrease. Following that treatment and the succeeding treatment in which teacher Modeling was taught, Teacher B slowly but surely decreased the use of negative teacher remarks from 27 during the first observation to only 2 during the last observation session.

Teacher use of the Teacher Reinforcement behavior depends upon the student first making a Positive Pupil Remarks. The teachers were taught to respond to the Positive Pupil Remark whether or not student peers were listening, since this was deemed a positive situation for the student involved. As can be seen in Table 5, Teacher A's mean response to occurring Positive Pupil Remarks per 4 hours before training was 45 percent. After training Teacher A responded to 86 percent of the occurring Positive Pupil Remarks in that classroom. Teacher B responded to 53 percent of these remarks before training and to 63 percent of them after training. However, there are several methods of responding to a Positive Pupil Remark which were all tallied as Teacher Reinforcement. One of these methods is a simple General Praise statement, such as "good". Both teachers were using General Praise to respond to Positive Pupil Remarks whenever they heard them before training. After training, correct teacher response increased and became more specialized for both teachers. Figure 1 illustrates these trends in both cases.

Results: Treatment 2A--Praise Behaviors

Section 1 of Module 2, Verbal Description for No-Problem Time, attempted to extinguish the use of Evaluative Praise and increase the use of Appreciative Praise. General Praise was also observed since it was expected to decrease after the teachers learned to use Appreciative Praise. The module points out possible dangers of using Evaluative Praise in the classroom as a type of Verbal Judgment. Some Evaluative Praise, however, will always be used by certain teachers with certain students as is discussed in the module. For any of these behaviors to occur in the classroom there must be something going on that the teacher wishes to praise. Therefore, their frequency is determined by the on-going classroom situation. As can be seen on Figure 2 for Teacher A and Teacher B, much fluctuation occurs in each individual's use of the behaviors before training, especially in the use of General Praise. Figure 2 reveals that both teachers used praise and, therefore, used some descriptive Appreciative Praise statements before training.

Directly after training with the introductory Module 1, as shown by Table 6, both teachers increased their use of descriptive Appreciative Praise, Teacher A from 9 to 18 remarks and Teacher B from 3 to 20 remarks. Treatment 1 also dramatically affected Teacher A's use of General Praise. Both Teacher A and Teacher B continued to increase their use of Appreciative Praise directly after training with Treatment 2A, Teacher A from 18 to 30 remarks and Teacher B from 20 to 25. Their use of this behavior dropped a little after the next treatment when new, functionally unrelated behaviors were learned, but then stabilized with Teacher A averaging approximately 19 Appreciative Praise statements per 4-hour observation after training and Teacher B averaging approximately 15. Neither Teacher A nor Teacher B tended to use very many Evaluative Praise statements before training. Teacher B used slightly more than Teacher A, averaging

six per observation session before training, while Teacher A averaged only three. After training with Treatment 2A, Teacher A decreased the use of Evaluative Praise to .75 uses per 4 hours of observation, while Teacher B decreased to 1.5 Evaluative Praise statements per 4 hours of observation. General Praise tended to decrease consistently throughout the study as more Appreciative Praise statements were used by each of the teachers. Teacher A averaged 62 General Praise statements per 4-hour increment before training and decreased this use to 20 General Praise statements per 4-hour increment after training. Teacher B used approximately 53 General Praise statements per observation before training and decreased to an average of 37 General Praise statements after training. Both teachers tended to replace a certain percentage of General Praise with Appreciative Praise statements per observation session.

Results: Treatment 2B

Treatment 2B--Module 3, Verbal Description when Students Own Problems--has two main purposes. The first purpose is to extinguish various types of Verbal Judgment behaviors. The second major purpose is to replace such behaviors with a verbally descriptive teacher response called Active Listening. Active Listening can only occur when a teacher responds to a student's spoken remark about a problem the student owns. The key to using this behavior lies in recognizing when a student owns a problem and it is appropriate to use Active Listening. Another behavior called a Descriptive Prompt is also introduced in this module. This behavior is designed to encourage students to talk about their problems thereby creating an opportunity for the teacher to use Active Listening. Since this behavior was tallied on the same line of the observation form as Positive Prompts at the beginning of the study, it could not be plotted on any of the graphs. Both Descriptive Prompts and Active Listening can also

be used to facilitate content-centered as well as student-centered discussions during what is essentially no-problem/teaching-learning time.

Figure 3 for Teacher A and for Teacher B reveals a remarkably stable pattern for both teachers regarding their use of the Active Listening behavior before training. Teacher A used Active Listening an average of five times per observation session while Teacher B used the behavior an average of four times per observation session. After training to use both Descriptive Prompts to encourage students to talk about their problems and Active Listening to respond once the student had spoken, the two teachers dramatically increased their use of both behaviors. As is shown on Table 7, by the end of the study Teacher A was using Active Listening an average of 15 times per 4 hours of teaching activity (10 times more than was averaged before training), while Teacher B was using Active Listening an average of 12 times (8 times more than was averaged before training). It will also be noted on Table 7 that the final Treatment 2C was delivered between observations six and seven, shifting the teacher emphasis to the new behaviors in that module. As a result, teacher concentration on the use of Active Listening decreased somewhat. Over all, the data show a moderate effect on the use of Active Listening when the students own problems in the classroom, given the limited amount of time the two subjects had to practice after completing training.

A dramatic decrease in teacher use of Verbal Judgment and Direct Command behaviors, however, is also revealed in Figure 3 for both teachers. Some variance can be seen between the two subjects in their use of these judgmental behaviors before any training occurred. Although both teachers averaged 37 uses of Verbal Judgment during the baseline observations, Teacher A averaged 82 uses of Direct Commands, 20 more uses than Teacher B, (see Tables 8 and 9). As can be seen in Figure 3 for each teacher, both judgmental behaviors decreased dramatically after Treatment 1 with the introductory module. The decrease is

most dramatic for Teacher A whose third observation produced a high frequency for all behaviors. As Tables 8 and 9 depict, both teachers' use of Verbal Judgment and Direct Commands consistently decreased after each succeeding treatment. By the end of the study, even given the restricted time to practice, both teachers decreased their average use frequency of Verbal Judgment per observation by 32 instances. Their use of Direct Commands in inappropriate situations also decreased by about 50 percent per teacher after the Treatment 1 module was taught. The final treatment, which dealt specifically with decreasing Direct Commands, was given between observations 6 and 7. It will be noted on Table 9 that another sharp drop in usage of Direct Commands occurred for each teacher as a result of this treatment.

Results: Treatment 2C

The descriptive behavior introduced by this treatment was called Inviting Cooperation. This behavior has three distinct uses. All three uses depend on the ongoing situation. The teachers were taught to use the Inviting Cooperation behavior in a certain form when they owned mild problems, essentially no-problem time. They were also taught to apply the Inviting Cooperation principle during problem time by using one, some or all of six possible steps either when the teacher first owns a problem or when there is an accident or sudden occurrence in the classroom and both teacher and student(s) own a problem. The specific judgmental behavior teachers were taught to avoid in this treatment was Direct Commands. Direct Commands, however, will always be used to some degree in the classroom. They can be replaced only in part by Inviting Cooperation statements in real situations. Direct Commands also are heavily influenced by the ongoing situation (see discussion above). The other judgmental behavior, Verbal Judgment, which was introduced in Treatment 1 and dealt with specifically in Treatment 2B, was again dealt with in Treatment 2C. Either

Verbal Judgment or Direct Commands can be used in all situations in which Inviting Cooperation can be used.

Table 10 and Figure 4 for Teacher A and Teacher B reveal that both teachers were using Inviting Cooperation during no-problem time before any treatment was delivered. The ongoing situation during the third observation for Teacher A required a great deal of verbal interaction including 78 uses of Inviting Cooperation, no-problem time. Therefore, Teacher A's use frequency per 4-hour increment of all three behaviors--Inviting Cooperation for no-problem time contrasted to Direct Commands and Verbal Judgment--was much higher during that baseline observation than for Teacher B (see Tables 8, 9, 10). It would be expected, therefore, that Teacher A's use for those three behaviors would fall between observation 3 and observation 4. Treatment 1 was delivered between those two observations and undoubtedly affected the obvious decrease in the judgmental behaviors. Treatment 2B further decreased each teacher's use of the Verbal Judgment and Direct Command behaviors, while Treatment 2C affected the use of Direct Commands for Teacher A more than for Teacher B (see Table 9).

The use of Inviting Cooperation during problem time first required the teachers to recognize the problem situations then deal with them accordingly. The introductory Treatment 1 affected both teacher's use of this application to some extent. As can be seen on Figure 4 for each teacher, the use frequency of Inviting Cooperation during problem time increased as a result of Treatment 1 and continued to increase for Teacher B to the end of the study with the highest increase occurring as a direct effect of Treatment 2C. After this treatment, Teacher B averaged 18 uses of Inviting Cooperation during problem time situations (see Table 10). Teacher A's use of the behavior increased the most after Treatment 1 and remained higher than baseline until the end of the study when the average per 4 hours was 11 uses (see Table 10). The Inviting Cooperation behavior during problem time is a more complicated behavior. Mastering it

requires more than the week of extra practice to which the study limited these teachers.

The final Figure 5 for Teacher A and Teacher B combines the use frequency per 4-hour increment of judgmental remarks versus descriptive remarks. Judgmental remarks on these two graphs are Evaluative Praise, Direct Commands, and Verbal Judgment remarks. Descriptive remarks are all Modeling, Positive Prompts, Teacher Reinforcement, Descriptive Prompts, Active Listening, and Inviting Cooperation for no-problem and problem time. Both Figures graphically portray a replacement of judgmental remarks with descriptive remarks for both teachers. Teacher A and Teacher B's use of judgmental remarks fell below the use of descriptive remarks directly following Treatment 1. From that point on, both teachers' use of descriptive remarks remained consistently above the use of judgmental remarks.

Results: Final Criterion Performance

A specific use criterion was established for each behavior taught. Two final criterion observations were carried out in each teacher's classroom after all the behaviors were taught. Please see the Spring 1981 Guidelines for Criterion Observations included as Appendix B for specific requirements. Both teachers involved met the specific use criterions for each individual behavior (Guidelines 1-11). Guideline 12 called for 80 percent of all observed messages delivered in pertinent instances to be descriptive rather then judgmental. The Guideline allowed for 20 percent of these combined remarks to be judgmental. As Table 11 reveals, without the necessary four to five weeks of practice needed after training to establish a basically consistent use of each behavior, neither teacher quite met this criterion. Both came close to the 80 percent criterion, however, with Teacher A achieving 78 percent descriptive remarks out of 186 pertinent remarks tallied, and Teacher B achieving 66 percent

descriptive remarks out of 190 pertinent remarks tallied. Teacher B literally reversed the use percentage of descriptive and judgmental remarks between the baseline and criterion observations, while Teacher A increased the use of descriptive remarks 41 percent. Although both teachers had reduced their Verbal Judgment and Labeling remarks 87 percent from an average of 37 before treatment to an average of 5 after treatment (Table 8), they were still using a fairly high average of Direct Commands per observation session (Table 9). Most of these Direct Commands were being used to give management instructions during no-problem time.

Findings

Analysis of the data resulted in the following findings. (1) Treatment 1: Teaching an introductory module indirectly affects teachers' use of certain behaviors in their classrooms. The behaviors most affected were the judgmental ones, Verbal Judgment and Labeling and Direct Commands, which decreased after Treatment 1. Also, use of the descriptive behavior Appreciative Praise was slightly and positively affected for both teachers. (2) Treatment 2A--Self-Perception: (a) Both teachers learned to use the Modeling behavior in their classrooms after training. They also continued to use this behavior at an appropriate level throughout the rest of the study. (b) Teachers learned to use Positive Prompts to elicit Positive Pupil Remarks as a result of this treatment. (c) Teachers became aware of Positive Pupil Remarks and responded correctly to a high percentage of them after training. (3) Treatment 2A--Praise Behaviors: (a) Teachers' use of Evaluative Praise, although initially low, decreased as a result of training. (b) Teachers learned to use descriptive Appreciative Praise directly after training. (c) Each teacher's use of General Praise decreased as it was consistently replaced with Appreciative Praise. (4) Treatment 2B--Verbal Description When Students Own Problems:

(a) Teachers learned to recognize when a student owned a problem plus how to avoid assuming the ownership themselves. (b) As a direct result of this treatment, teachers adopted Descriptive Prompts and Active Listening as tools in student-owned problem situations. (c) Teacher use of Verbal Judgment and Direct Commands decreased as teachers replaced judgmental remarks with descriptive remarks when students owned problems. (5) Treatment 2C--Verbal Description that Invites Cooperation: (a) Teachers learned to recognize Inviting Cooperation situations (those in which their needs were not being met), both during no-problem time and problem time. (b) As a direct result of training, both teachers began to use the various types of available Inviting Cooperation remarks in appropriate management situations. (c) Teacher use of both Verbal Judgment and Direct Commands further decreased as a result of training to use Verbal Description to invite student cooperation. (6) General Findings: (a) Both teachers replaced nearly 80 percent of their judgmental remarks with appropriate descriptive remarks in pertinent situations. (b) As judgmental remarks decreased, total verbal teacher responses in pertinent management situations also decreased.

Conclusions

As noted in the tables and figures presented, evaluation data collected on the new elementary/secondary program indicate: (1) Secondary (junior high) teachers will indeed exhibit changes in their use frequency of the Utah Pupil/Teacher Self-Concept verbal behaviors when each of these behaviors is taught. For the two teachers included in the study, these changes were often dramatic. The use of judgmental behaviors decreased in frequency as opposed to the use of descriptive behaviors which increased in frequency. (2) Secondary teachers,

for the most part do have to learn the particular verbal behaviors taught by the Utah Pupil/Teacher Self-Concept Program in order to use them in the classroom. Only behaviors that exhibited a very high use frequency, such as Inviting Cooperation no-problem time and Direct Commands, appeared with much regularity during the baseline observations. (3) Each of the treatments mainly affects the behaviors that it is designed to affect. However, teaching an introductory module affects change in certain behaviors before those behaviors are dealt with directly in a succeeding treatment. (4) Previous data collected on similar behaviors has shown that teachers who are markedly low on the use of descriptive behaviors and/or markedly high on the use of judgmental behaviors during baseline observations are most affected by the particular module treatment. Possible cross-treatment effects also appear more marked for such teachers. Both teacher A and Teacher B fall into this category. (5) Any specific descriptive behavior designed to replace a specific judgmental behavior was used by the subjects for that purpose. For example, in situations where Direct Commands could be used, the teachers learned to use Inviting Cooperation statements; and in student-owned problem situations where Verbal Judgment could be used, the teachers learned to use Descriptive Prompts and Active Listening statements instead. The above conclusions were drawn based on the findings as applied to similar subjects in similar teaching situations.

The Main Field Test

Following the conclusion of the Preliminary Field Test, the entire new elementary/secondary program was revised according to the data collected. During this final and third year of the study, the main thrust is to collect summative evaluation data. Therefore, a Main Field Test is being conducted at

the present time on the revised program. The purpose of this field test is to assess the effectiveness of the Utah Pupil/Teacher Self-Concept Program in changing specific teacher behaviors related to self-concept. The research focuses on secondary in-service teachers from junior high and high schools in the Logan City and Cache County School Systems, Utah. An experimental pre-post control group design is being employed. The experimental group consists of 12 teachers and the control group consists of 10 teachers. Pre-treatment observations have been conducted in all teachers' classrooms for one full day each. The experimental teachers are now being trained to use the program verbal behaviors. They are participating in a 10-week training class. At the end of this class, post-treatment observations will be conducted in all teacher's classrooms. The independent variable in this study is the experimental treatment while the dependent variables are, again, the use frequencies for the eleven teacher behaviors. An analysis of covariance (with the prescores as the covariate) will be used to analyze the observation data. If the data results are significantly favorable, an application for program validation will be submitted according to the Identification, Validation and Dissemination (IVD) Process of the State of Utah. Given positive results, the program will be made available for dissemination by the Logan City School District to other interested local education associations in the state of Utah. Cost of such dissemination will be born by adoptable funds, should the product qualify for validation, or by direct monies from interested districts.

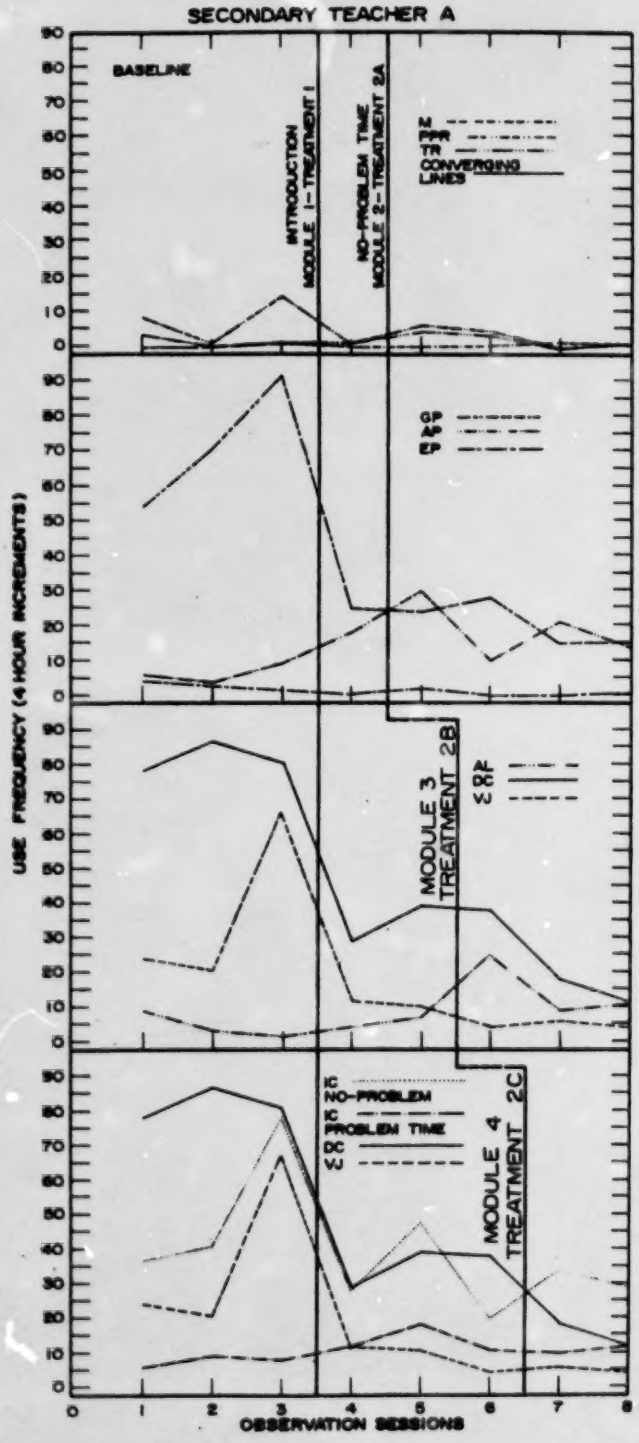

Figure 1. Module 2--Verbal Description for No-Problem Time, individual teacher use of Modeling, Teacher Reinforcement of Positive Pupil Remarks. Treatment 2A consisted of teaching the Module 2 behaviors between the fourth and fifth observation sessions.

Figure 2. Module 2--Verbal description for No-Problem Time, individual teacher use of General Praise, Appreciative Praise, and Evaluative Praise.

Figure 3. Module 3--Verbal Description When Students Own Problems, individual teacher use of Active Listening, Direct Commands, and Verbal Judgment. Treatment 2B consisted of teaching the Module 3 behaviors between the fifth and sixth observation sessions.

Figure 4. Module 4--Verbal Description That Invites Student Cooperation, individual teacher use of Inviting Cooperation during No-Problem and during Problem Time, Direct Commands, and Verbal Judgment. Treatment 2C consisted of teaching the Module 4 behaviors between the sixth and seventh observation sessions.

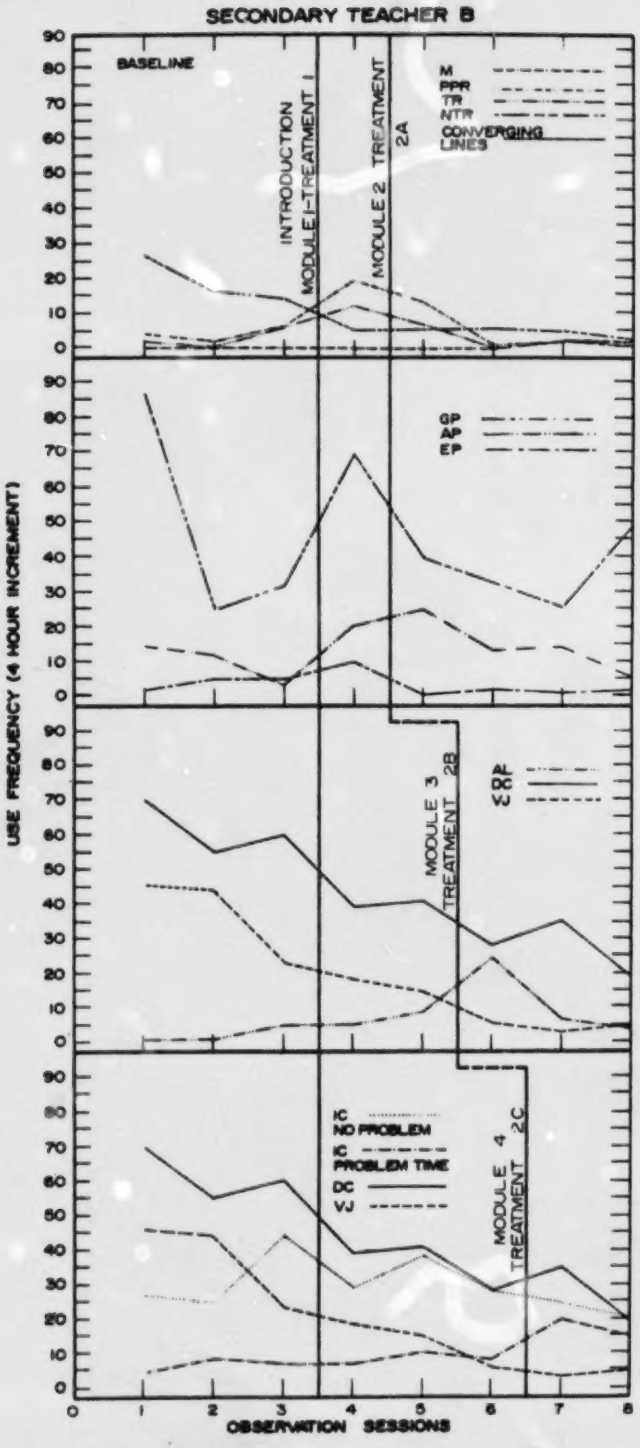

Figure 1. Module 2--Verbal Description for No-Problem Time, individual teacher use of Modeling, Teacher Reinforcement of Positive Pupil Remarks. Treatment 2A consisted of teaching the Module 2 behaviors between the fourth and fifth observation sessions.

Figure 2. Module 2--Verbal description for No-Problem Time, individual teacher use of General Praise, Appreciative Praise, and Evaluative Praise.

Figure 3. Module 3--Verbal Description When Students Own Problems, individual teacher use of Active Listening, Direct Commands, and Verbal Judgment. Treatment 2B consisted of teaching the Module 3 behaviors between the fifth and sixth observation sessions.

Figure 4. Module 4--Verbal Description That Invites Student Cooperation, individual teacher use of Inviting Cooperation during No-Problem and during Problem Time, Direct Commands, and Verbal Judgment. Treatment 2C consisted of teaching the Module 4 behaviors between the sixth and seventh observation sessions.

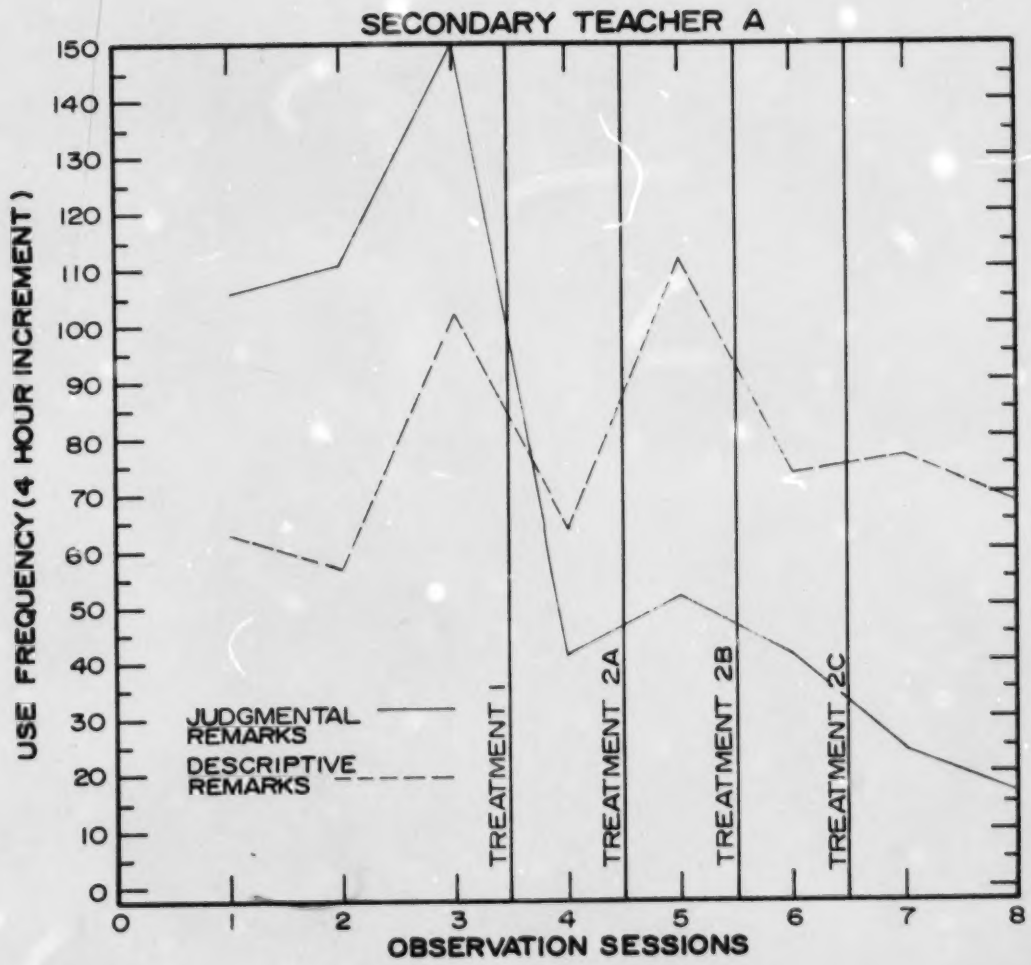

Figure 5: Descriptive Remarks versus Judgmental Remarks emitted

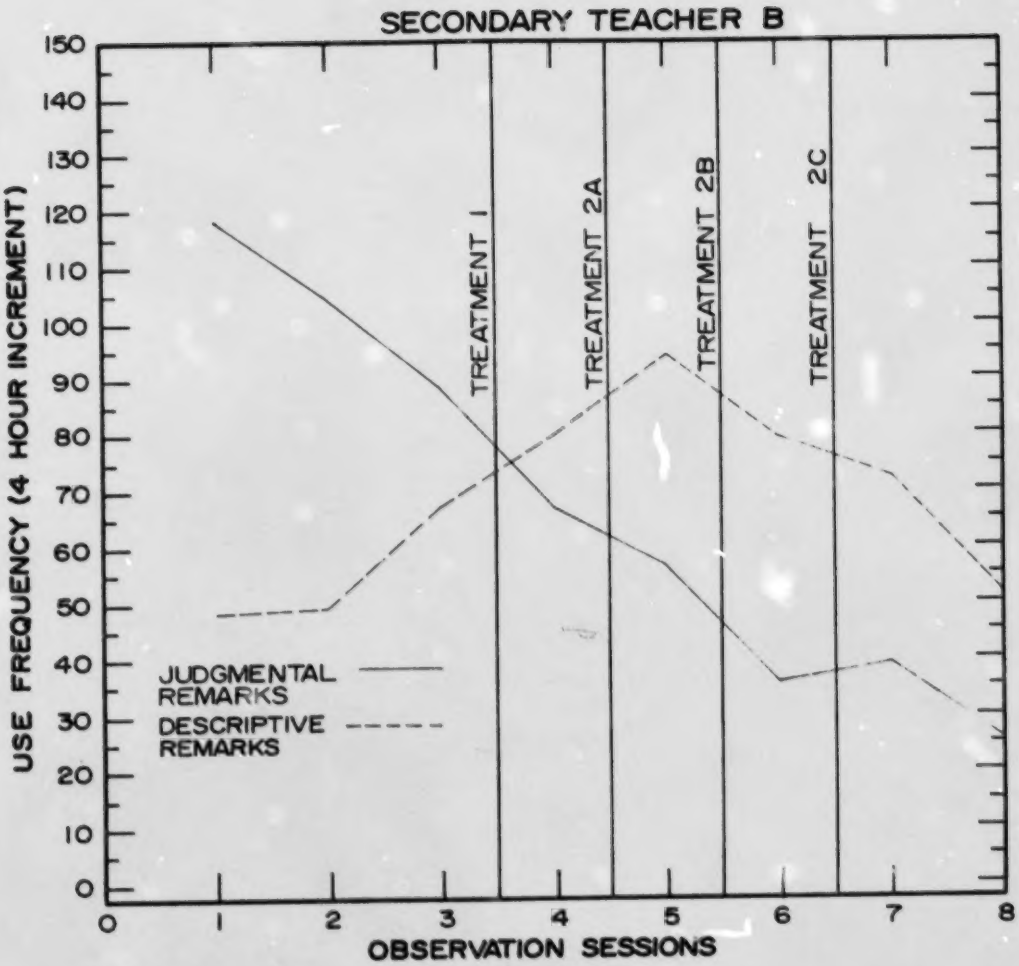

Figure 5: Descriptive Remarks versus Judgmental Remarks emitted

Table 5

Individual Teacher Use Frequencies

for the Self-Perception Behaviors

	Modeling		Pupil Positive Self-Remarks		Teacher Reinforcement		Percent Correct Teacher Response[b]	
Observations	A	B[a]	A	B	A	B	A	B
1	0	0	8	4	3	2	37%	50%
2	0	0	1	2	0	0	0%	0%
3	1	0	14	6	1	6	42%	100%
4	0	0	1	19	1	12	100%	63%
Pre-Treatment Average	.25%	0%					45%	53%
Treatment 2A -- Module 2 Behaviors Taught								
5	1	0	6	13	4	7	67%	54%
6	0	1	4	1	3	0	75%	0%
7	1	2	0	2	0[c]	2	100%	100%
8	1	1	1	2	1	2	100%	100%
Post Treatment Average	.75%	1%					86%	63%

[a]A and B are the respective teachers as discussed in the text.

[b]Percent correct teacher responses means the percent of the responses that were correct given the pupil positive self-remarks that occurred during the session.

[c]Underlined 0's should be zero teacher response because there was no pupil remark to which to respond

Table 6

Individual Teacher Use Frequency for Praise Behaviors

Observations	General Praise		Appreciative Praise		Evaluative Praise	
	Teachers		Teachers		Teachers	
	A	B	A	B	A	B
1	54	87	6	14	4	2
2	71	25	4	12	3	5
3	96	32	9	3	2	5
Treatment 1 -- Introduction (Module 1) Taught						
4	25	69	18	20	1	10
Pre-Treatment Average	62	53	9	12	3	6
Treatment 2A -- Module 2 Behaviors Taught						
5	24	40	30	25	2	1
6	28	33	10	13	0	2
7	15	26	21	14	0	1
8	15	48	14	6	1	2
Post-Treatment Average	20	37	19	15	.75	1.5

Table 7

Individual Teacher Use Frequencies for Active Listening When Students Own Problems

Observations	Active Listening	
	Teachers	
	A	B
1	9	1
2	3	1
3	2	5
Treatment 1 -- Introduction (Module 1) Taught		
4	4	5
5	7	8
Pre-Treatment 2B Average	5	4
Treatment 2B -- Module 3 Behaviors Taught		
6	25	24
Treatment 2C -- Module 4 Behaviors Taught		
7	9	7
8	11	4
Post-Treatment 2B Average	15	12

Table 8

Individual Teacher Use Frequencies for

Verbal Judgment and Labeling Remarks

Observations	Verbal Judgment	
	Teachers	
	A	B
1	24	46
2	21	44
3	67	23
Pre-Treatment Average	37	37
Treatment 1 -- Introduction (Module 1) Taught		
4	12	18
5	11	15
Post-Treatment 1 Average	11	16
Treatment 2B -- Module 3 Behaviors Taught		
6	4	6
Treatment 2C -- Module 4 Behaviors Taught		
7	6	3
8	4	5
Post-Treatment 2B & 2C Average	5	5

Table 9

Individual Teacher Use Frequencies for

Direct Commands

Observations	Direct Commands	
	Teachers	
	A	B
1	78	70
2	87	55
3	81	60
Pre-Teatment Average	82	62
Treatment 1 -- Introduction (Module 1) Taught		
4	29	39
5	39	41
6	38	28
Post-Treatment 1 Average	35	36
Treatment 2C -- Module 4 Behaviors Taught		
7	18	35
8	12	19
Post-Treatment 2C Average	15	27

Table 10

Individual Teacher Use Frequency for Inviting Cooperation

During No-Problem and Teacher Owned Problem Time

Observations	Inviting Cooperation No-Problem Time		Inviting Cooperation Problem Time	
	Teachers		Teachers	
	A	B	A	B
1	37	27	6	4
2	41	25	9	8
3	78	44	8	7
Pre-Treatment 1 Average	52	32	7	6
Treatment 1 -- Introduction (Module 1) Taught				
4	28	29	12	7
5	48	38	18	10
6	20	28	11	8
Post-Treatment 1 Average	32	32	12	8
Treatment 2C -- Module 4 Behaviors Taught				
7	34	35	10	20
8	29	19	12	15
Post-Treatment 2C Average	32	27	11	18

Table 11

Percent of Descriptive Remarks[a] Versus Percent of Judgmental Remarks[b] Emitted Before and After Training

	Teacher A	Teacher B
Baseline Judgmental Remarks	63%	66%
Criterion Judgmental Remarks	32%	34%
Baseline Descriptive Remarks	37%	34%
Criterion Descriptive Remarks	78%	66%

[a]Descriptive remarks are Modeling, Positive Prompts, Teacher Reinforcement, Appreciative Praise, Descriptive Prompts, Active Listening, and Inviting Cooperation, no-problem and problem time.

[b]Judgmental remarks are all Evaluative Praise, Direct Commands, and Verbal Judgment and Labeling, no-problem and problem time.

References

Ascione, F. R. & Borg, W. R. Effects of a training program on teacher behavior and handicapped children's self-concepts. Journal of Psychology, 1980, 104, 53-65.

Aspy, D. A discussion of the relationship between selected student behavior and the teacher's use of interchangeable responses. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, 1973.

Bandura, A. Social learning theory. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1977.

Bandura, A., & McDonald, F. J. Influence of social reinforcement and behavior of models in shaping children's moral judgments. Journal of Abnormal and Social Psychology, 1963, 67, 247-281.

Bijou, S. W., & Baer, D. M. The laboratory-experimental study of child behavior. In P. H. Mussen (Ed.), Handbook of research methods in child development. New York: Wiley, 1960, 140-197.

Borg, W. R. "Protocol Materials as Related to Teacher Performance and Pupil Achievement." Journal of Educational Research, 1975, 69, 23-30.

Borg, W. R. Changing teacher and pupil performance with protocols. Journal of Experimental Education, 1977, 45, 9-18.

Borg, W. R. & Gall, M. D. Educational research: An introduction, (Third edition). New York: Longman, 1979.

Canfield, J., & Wells, H. 100 Ways to enhance self-concept in the classroom: A handbook for teachers and parents. Englewood Cliffs, New Jersey: Prentice-Hall, 1976.

Dunkin, M., & Biddle, B. The study of teaching. New York: Holt, Rinehart and Winston, 1974.

Edgar, E., & Billingsley, F. "Believability when N=1." Psychological Record, 1974, 24, 147-160.

Felker, D. E., Stanwyck, D. J., & Kay, R. C. The effects of a teacher program in self-concept, anxiety, and intellectual achievement responsibility. Journal of Educational Research, 1973, 66, 443-445.

Felker, D. W., & Thomas, S. B. Self-initiated verbal reinforcement and positive self-concept. Child Development, 1971, 42, 1285-1287.

Ginott, H. G. Teacher and child: A book for parents and teachers. New York: Macmillan, 1972.

Good, T. L., Biddle, B. J., & Brophy, J. E. Teachers make a difference. New York: Holt, Rinehart and Winston, 1975.

Gordon, T. G. P.E.T.: Parent effectiveness training, the tested new way to raise responsible children. New York: Peter H. Wyden, Inc., 1970.

Gordon, T. G. T.E.T.: Teacher effectiveness training. New York: David McKay Company, Inc., 1977.

Ingis, S. C. The development and validation of an instrument to assess teacher invitiations and teacher effectiveness as reported by students in a technical and general post-secondary educational setting. Unpublished doctoral dissertation, University of Florida, 1976.

Joyce, B. R., & Weil, M. Models of Teaching. New Jersey: Prentice-Hall, Inc., 1980.

Kifer, E. Relationships between academic and personality characteristics: A quasi-logitudinal study. American Educational Research Journal, 1975, 12, 91-210.

Krop, H., Calhoon, B., & Verrier, R. Modification of the "self-concept" of emotionally disturbed children by court reinforcement. Behavior Therapy, 1971, 2(2), 201-204.

Marlowe, D. Need for social approval and the operant conditioning of meaningful verbal behavior. Journal of Consulting Psychology, 1962, 26, 79-83.

Purkey, W. W. Self-concept and school achievement. Englewood Cliffs, New Jersey: Prentice-Hall, 1970.

Purkey, W. W. The invitational secondary school. Thresholds in Secondary Education, 1975, 3, 16-19.

Purkey, W. W. Inviting school success: A self-concept approach to teaching and learning. Belmont, California: Wadsworth Publishing Company, Inc., 1978.

Purkey, W. W., & Avila, D. L. Classroom discipline: A self-concept approach. Elementary School Journal, 1971, 6: 325-328.

Quinn, J. The effect of positive stroking on the self-concept of eighth grade students. Unpublished doctoral dissertation, University of Oklahoma, 1977.

Richmond, B. O., & Dalton, J. L. Teacher ratings and self-concept reports of retarded pupils. Exceptional Children, 1973, 40, 178-183.

Shiffler, N., Lynch-Sauer, J., & Nadelman, L. Relationship between self-concept and classroom behavior in two informal elementary classrooms. Journal of Educational Psychology, 1977, 69, 349-359.

Sidman, M. Tactics of scientific research. New York: Basic Books, 1960.

Spears, W. D., & Deese, M. E. Self-concept as cause. Educational Theory, 1973, 23(2), 144-153.

Stoffer, D. L. Investigation of positive behavioral change as a function of genuineness, nonpossessive warmth, and empathic understanding. Journal of Educational Research, 1970, 63, 225-228.

Sulzer-Azaroff, B., & Mayer, G. R. Applying behavior-analysis procedures with children and youth. New York: Holt, Rinehart and Winston, 1977.

Thoreson, C. E., & Anton, J. L. Intensive experimental research in counseling. Journal of Counseling Psychology, 1974, 21, 553-559.

Truax, C. B., & Tatum, C. D. An extension from the affective psychotherapeutic model to constructive personality change in preschool children. Childhood Education, 1966, 42, 456-462.

Van Horn, K. L. Teacher strategies to improve pupil self-concept. Unpublished thesis, Utah State University, 1980.

Wattenberg, W. W., & Clifford, C. Relation of self-concepts to beginning achievement in reading. Child Development, 1964, 35, 461-467.

Wiekart, D. Relationship of curriculum, teaching, and learning in preschool education. Paper presented at the Hyman Blumberg Memorial Symposium on Research in Early Childhood Education, 1971.

Wheeler, R., & Ryan, F. Effects of cooperative and competitive classroom environments on the attitudes and achievement of elementary school students engaged in social studies inquiry activities. Journal of Educational Psychology, 1973, 65, 402-407.

Appendix A: Objective Self-Concept Teacher Behavior Observation Form

SELF-CONCEPT OBSERVATION FORM

Teacher's Name _____ School _____ Gr. _____ Date _____ Observer _____

Observation Time Recorded:

Start _____ Finish _____ Tallied Non-interaction Time in minutes _____ Net Time _____

BEHAVIOR	TALLY	TOTAL
1. Modeling		
2. Positive Prompt		
Positive Pupil Remark		
Teacher Reinforcement		
3. General Praise		
4. Appreciative Praise		
5. Evaluative Praise		
6. Descriptive Prompts		
7. Active Listening		
8. Verbal Judgment		
9. Direct Commands		
Inviting Cooperation:		
10. No-Problem Time		
11. Problem Time (Concrete and Tangible Effect)		
Describes Situation		
Describes Concrete Effect		
Describes Teacher Feelings		
Describes Desired Behavior		
Teacher owns Problem FIRST		
Teacher & Student Own Prob. (Sudden Occurrence)		

Appendix B: Spring 1981 Guidelines for Criterion Observations

During the time that an observer is in your classroom, I would like you to try to use all of the descriptive self-concept behaviors as often as possible and the class of judgmental behaviors, including Direct Commands, as seldom as possible. The following criteria should not be regarded as rigid standards, but rather as guidelines. Class discussions that are either content or student-centered, recitations or other activities in which you are interacting with your students will make it easier for you to achieve these guidelines while being observed.

	BEHAVIOR	CRITERION
1.	Modeling	3 on both days combined
2.	Positive Prompt	3 on both days combined
3.	Teacher Reinforcement or a Positive Pupil Remark	67% or 2 out of every 3 Positive Pupil Remarks reinforced--IF THE TEACHER COULD RESPOND TO THE REMARK.
4.	Appreciative Praise	12 on both days combined
5.	Evaluative Praise	25% or less of all AP and EP on both days combined
6.	Descriptive Prompts	3 on both days combined
7.	Active LIstening	10 on both days combined
8.	Inviting Cooperation No-Problem Time	45 on both days combined
9.	Inviting Cooperation Problem Time	Respond appropriately on 10 instances between the 2 days
10.	Verbal Judgment and Labeling	No more than 10 between the 2 days
11.	Direct Commands	Average no more than 25 between the 2 days
12.	Overall use of Descriptive versus Judgmental messages in all pertinent instances	80% descriptive / 20% Judgmental

Appendix C: Elementary Teacher Figures

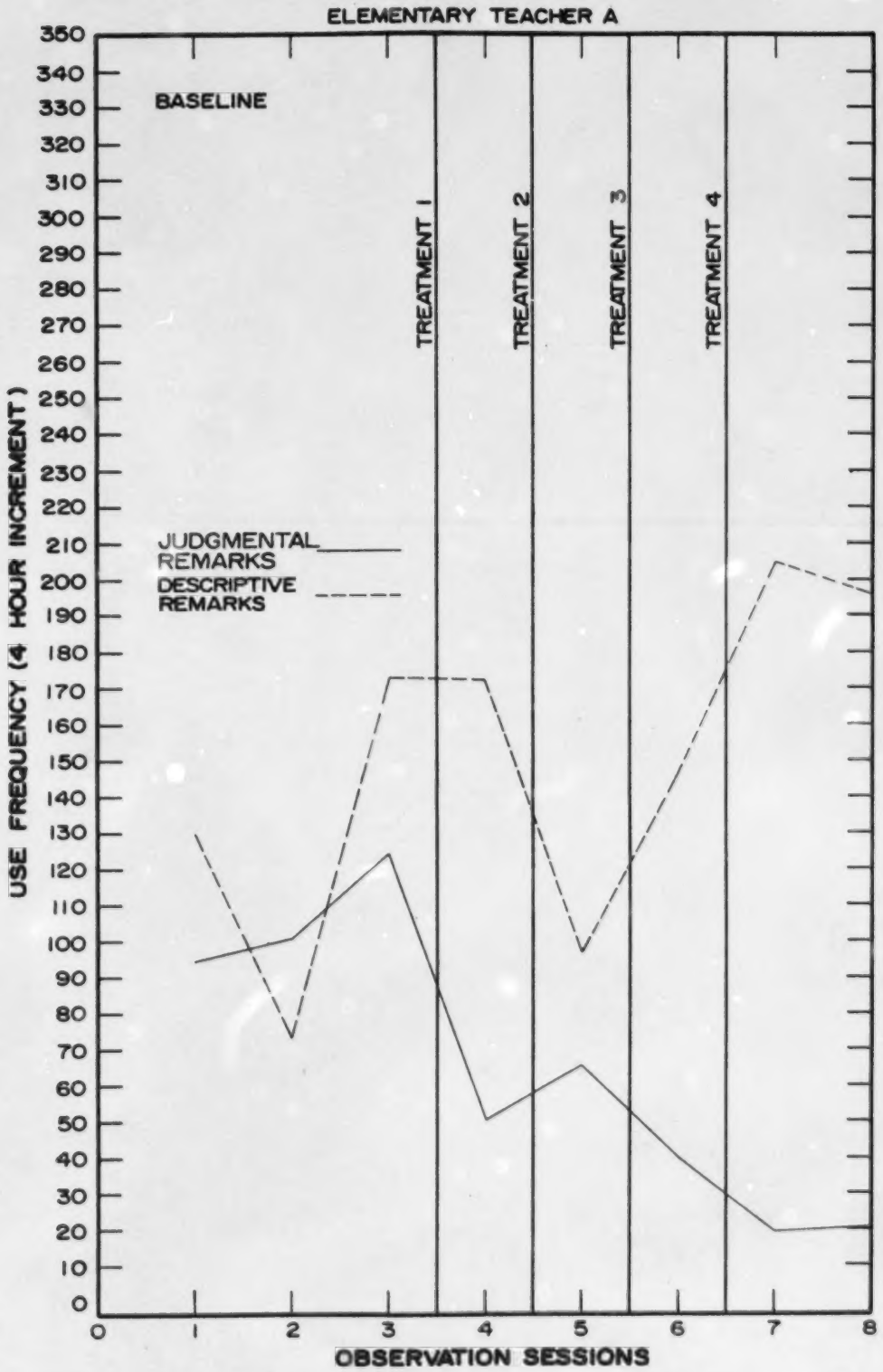

Figure 6: Descriptive Remarks versus Judgmental Remarks emitted

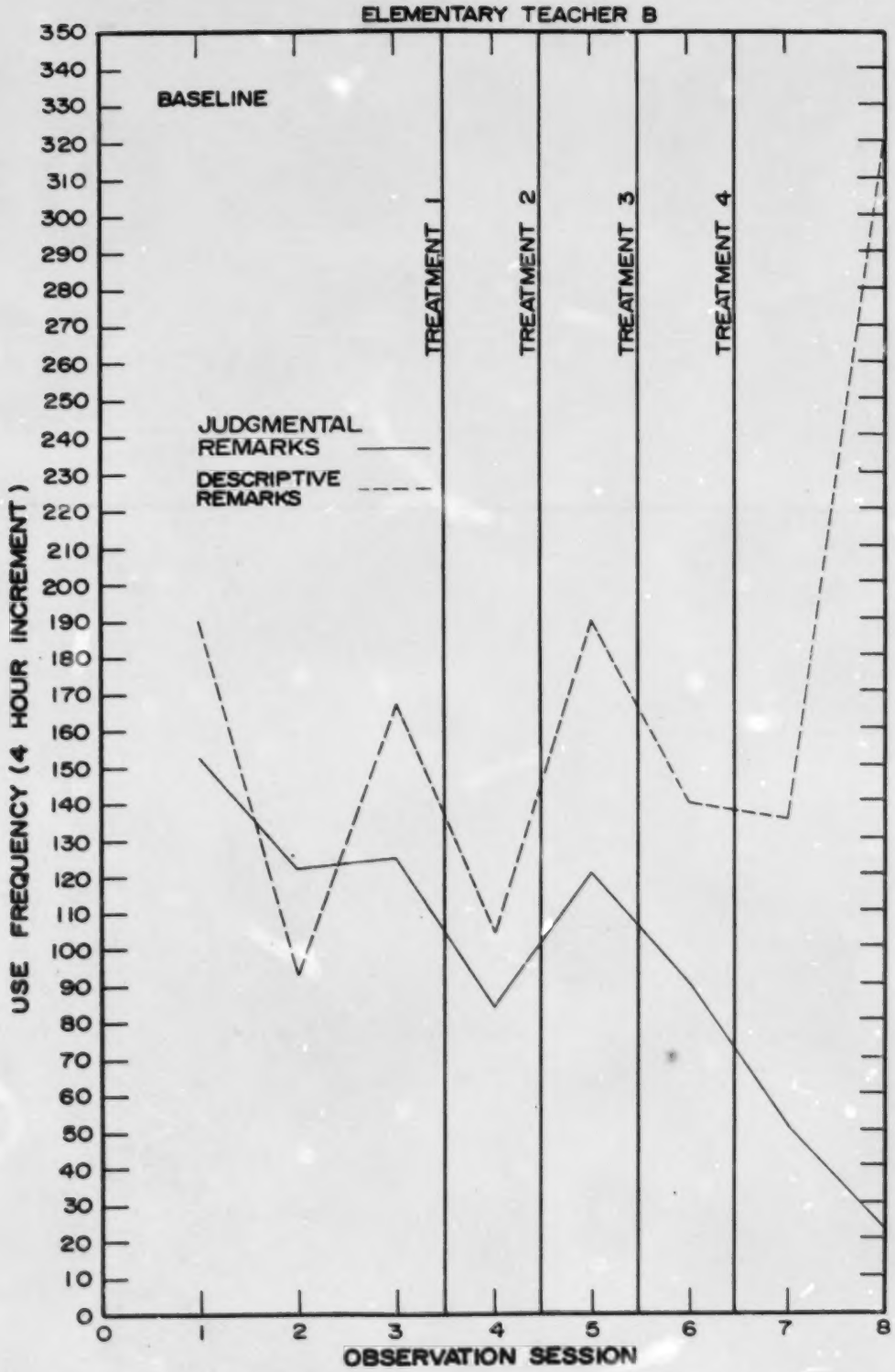

Figure 7: Descriptive Remarks versus Judgmental Remarks emitted

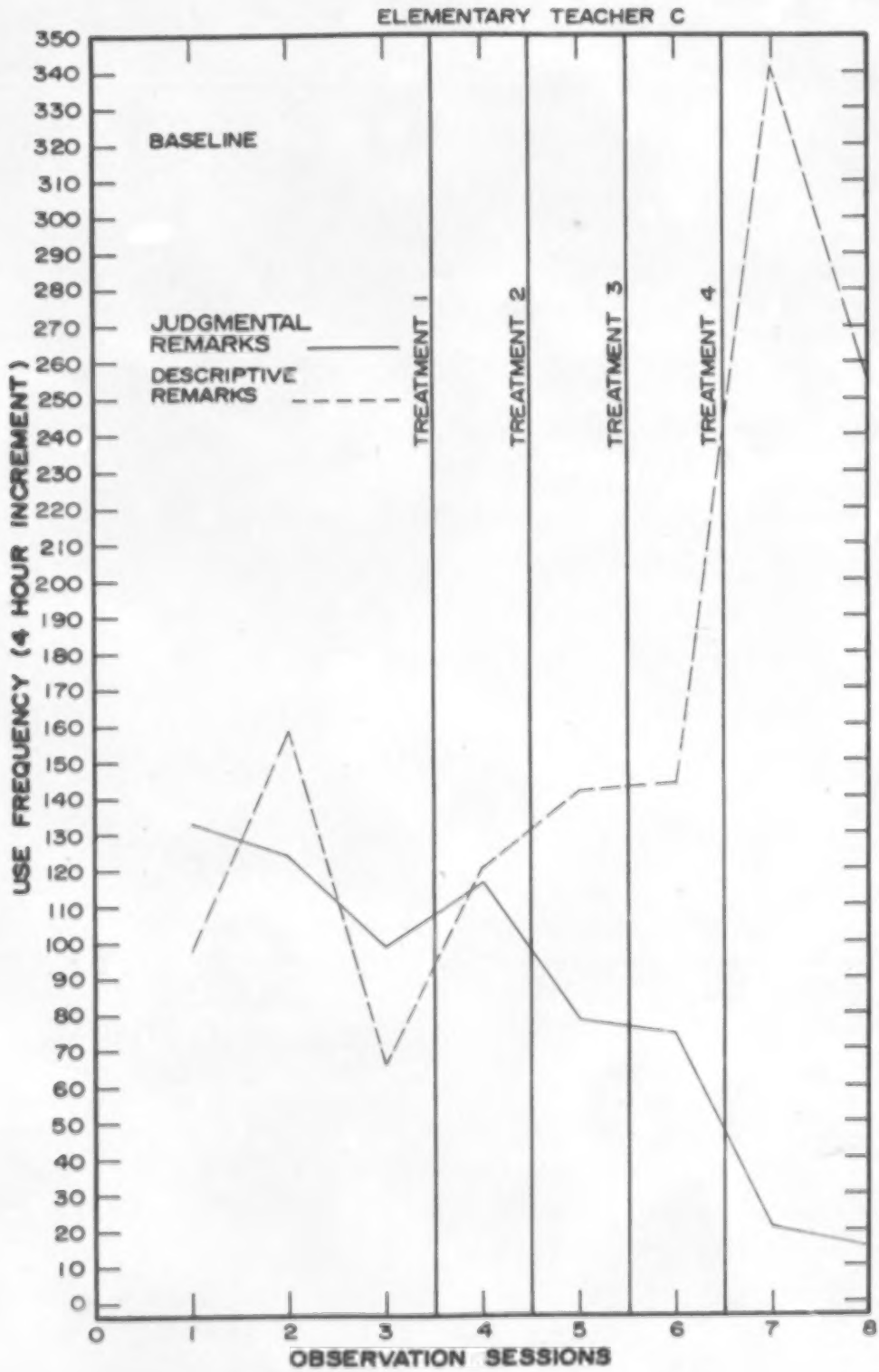

Figure 8: Descriptive Remarks versus Judgmental Remarks emitted

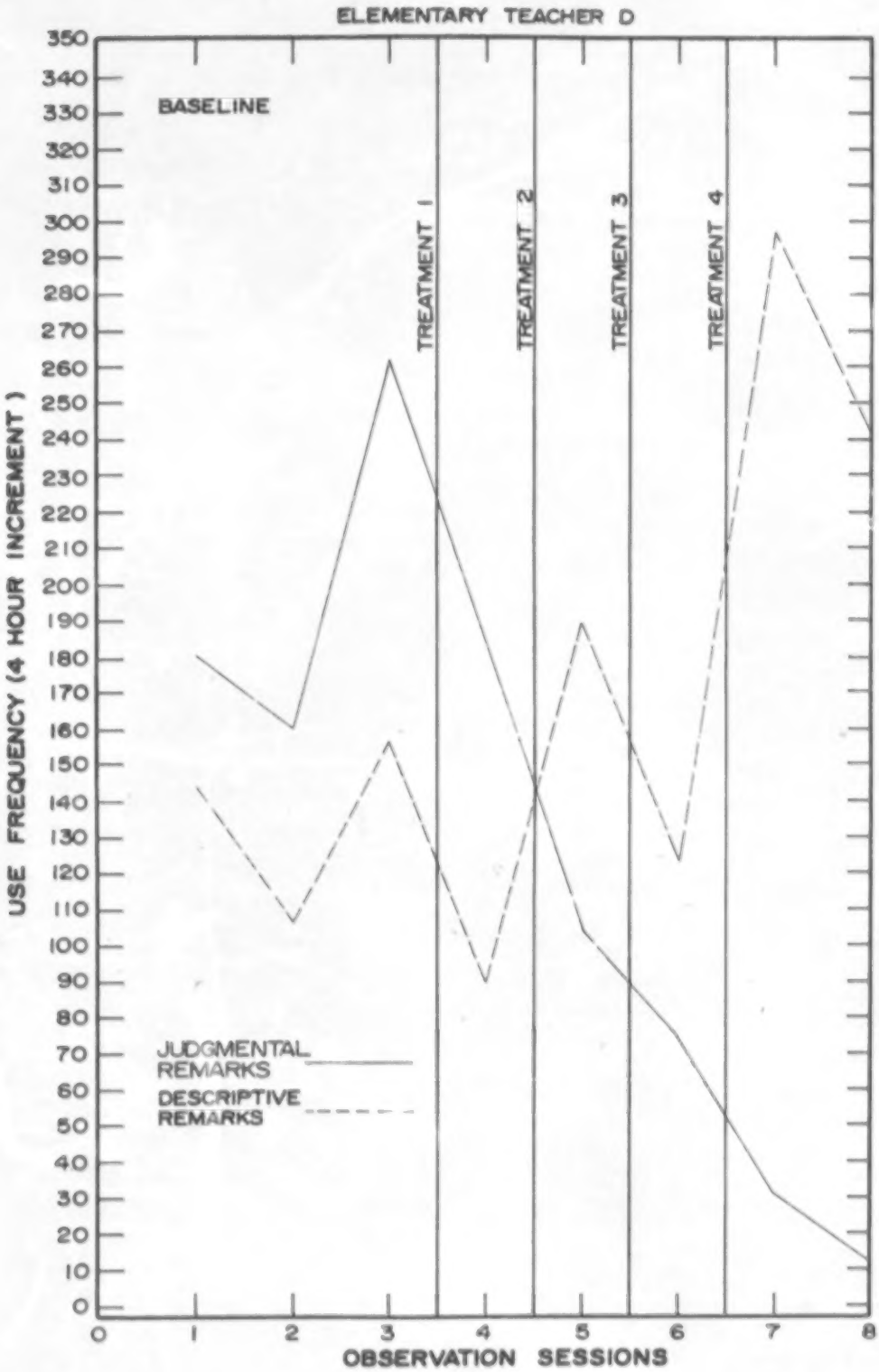

Figure 9: Descriptive Remarks versus Judgmental Remarks emitted